

REMARKS/ARGUMENTS

1. In the above referenced Office Action, the Examiner rejected claims 1 and 5 under 35 USC § 102 (b) as being anticipated by Dabrowski (U.S. Patent No. 5,644,272); claims 1 - 4 and 6 - 9 under 35 USC § 102 (e) as being anticipated by Rofougaran (U.S. Patent No. 6,809,581); and claims 6 and 10 under 35 USC § 103 (a) as being unpatentable over Dabrowski (U.S. Patent No. 5,644,272) in view of Dexter (U.S. Patent No. 6,654,595). These rejections have been traversed and, as such, the applicant respectfully requests reconsideration of the allowability of claims 1 - 10.

2. Claims 1 and 5 have been rejected under 35 USC § 102 (b) as being anticipated by Dabrowski (U.S. Patent No. 5,644,272). The applicant respectfully disagrees with the Examiner's arguments supporting this rejection.

Dabrowski teaches a circuit as shown in Figure 3 that includes a balun (striplines S11, S12, S21, and S22), transmission lines S3, S4, S5, and S6, and capacitors C1, C2, C3, C4, and C5. Dabrowski teaches at column 4, lines 34 - 46, symmetrical output ports 32 and 34 are connected to nodes 48 and 50 with lines S4 and S6. The proper choice of impedance values and electrical lengths for the transmission line elements S3 and S4 and capacitor value of C3 on one side and substantially the same impedance values and electrical lengths for transmission line elements S5 and S6 and capacitance value for C4 on the other side, determine an output impedance of the terminating balun circuit. Those skilled in the art will appreciate that the

output impedance can be varied so that the symmetrical ports provide maximal gain (power matching), minimal noise (noise matching) or a compromise between the two competing objectives depending on the application.

Dabrowski further teaches at column 4, lines 27 - 30, that capacitors C1 and C2 have values that are chosen based upon the desired operating frequency of the balun to provide proper matching and impedance transformation for the nonsymmetrical output of the balun.

As such, Dabrowski teaches the use of multiple transmission lines S3 - S6 in combination with capacitors C3 and C4 to establish the impedance of the symmetrical output of the balun and teaches the use of capacitors C1 and C2 to establish the impedance of the nonsymmetrical output of the balun.

In contrast, the tuned transformer balun circuit of claim 1 does not include transmission lines like transmission lines S3 and S5 of Dabrowski to help establish the output impedance, nor does it include a capacitors like C2 of Dabrowski to establish the impedance of the nonsymmetrical output of the balun. Instead, the tuned transformer balun of claim 1 includes a transformer balun, a first capacitor, a second capacitor, and a third capacitor, wherein, based on loading of the single-ended winding and the differential winding of the transformer balun, the first, second, and third tuning capacitors resonate with the transformer balun. As such, the applicant believes that the present rejection of claim 1 has been overcome.

Claim 5 is dependent upon claim 1, which has been shown to overcome the present rejection. Since claim 5 introduces additional patentable subject matter in view of claim 1, the applicant believes that the reasons that distinguish claim 1 over the cited prior art are applicable in distinguishing claim 5 over the same art.

3. Claims 1 - 4 and 6 - 9 have been rejected under 35 USC § 102 (e) as being anticipated by Rofougaran (U.S. Patent No. 6,809,581). The applicant respectfully disagrees with the Examiner's arguments supporting this rejection.

The applicant has amended the claims to remove the "operably coupled" phrase and inserted the word "coupled". As such, the Examiner's argument that the capacitors C1 and C2 of Rofougaran being "operably coupled" to ground via transistors T3 and T4 and inductors L3 and L4 is no longer valid since, as amended, the second and third capacitors of the present claims are "coupled" to ground. Accordingly, the applicant believes that the present rejection has been overcome.

4. Claims 6 and 10 have been rejected under 35 USC § 103 (a) as being unpatentable over Dabrowski (U.S. Patent No. 5,644,272) in view of Dexter (U.S. Patent No. 6,654,595). The applicant respectfully disagrees with the Examiner's arguments supporting this rejection.

The applicant believes that the reasons that distinguish claim 1 over Dabrowski are applicable in

distinguishing claim 6 over Dabrowski. Thus, the combination of Dabrowski with Dexter fails to render claim 6 obvious.

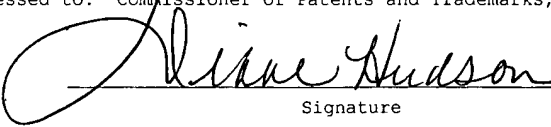
Claim 10 is dependent upon claim 6, which has been shown to overcome the present rejection. Since claim 10 introduces additional patentable subject matter in view of claim 6, the applicant believes that the reasons that distinguish claim 6 over the cited prior art are applicable in distinguishing claim 10 over the same art.

For the foregoing reasons, the applicant believes that claims 1 - 10 are in condition for allowance and respectfully request that they be passed to allowance.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present invention.

RESPECTFULLY SUBMITTED,

By: /Timothy W. Markison reg. 33,534/
Timothy W. Markison
Phone: (512) 342-0612
Fax No. (512) 342-1674

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